EPITOME OF CURRENT MEDICAL LITERATURE.

Medicine.

84. **Renal Rickets.**

ACCORDING to G. V. ASHCROFT (*Journ. of Bone and Joint Surgery*, April, 1926, p. 279), the clinical picture of renal rickets shows stunting with rachitic deformities, usually of late onset, and occurring with or without demonstrable kidney lesion. In renal rickets the urine is pale, of low specific gravity, and usually contains albumin. The deformity appears about puberty, and in the twenty-four cases collected there was a great preponderance among females. There was marked muscular asthenia, but no muscle wasting. The patients adopt an atonic posture when standing; the gait is waddling and they are scarcely able to lift the feet from the floor. Radiograms showed a general rarefaction and changes at the epiphyseal lines characteristic of rickets; split fractures were frequently seen. The change in the metaphysis predominates, with a hazy woolly porosis. The kidneys showed chronic interstitial nephritis, while the suprarenals had thickened capsules with increase of the connective tissue between the cells, and the thyroid gland appears inactive in these cases. It is suggested that the condition arises from an ascending infection of the urinary tract which has spread to the suprarenals. Operation in these cases is liable to be followed by disaster. The best treatment is cod-liver oil, calcium salts, and perhaps thyroid extract. Massage and exercises should be given, and this may arrest the disease. Ashcroft thinks that the evidence warrants the suggestion that the disease is due to fibrosis of the suprarenal gland.

85. **Gerlier's Syndrome in Epidemic Encephalitis.**

H. VERGER (*Gaz. hebd. des Sci. Méd. de Bordeaux*, March 14th, 1926, p. 164) records three cases of epidemic encephalitis in patients aged 17, 61, and 31 respectively, who presented the syndrome described by Gerlier in 1887 under the name of "paralytic vertigo," and later called "kubisagari" by the Japanese. The syndrome is characterized by attacks of asthenic paralysis chiefly affecting the extrinsic muscles of the eyes, the bulbar muscles, the muscles of the front and back of the neck, and in some instances those of the limbs. The vertigo is only a secondary phenomenon, and is the ordinary consequence of the visual disturbance or of staggering caused by paresis of the lower limbs. Neuralgias in various situations have also been described. Verger comes to the conclusion, first, that epidemic encephalitis may appear in a form resembling Gerlier's syndrome, and secondly, that the epidemic disease of Gerlier and the kubisagari of the Japanese were probably only episodes in epidemic encephalitis of which the existence was unknown prior to the work of Cruchet, Moutier, and Calmette.

86. **Technique in Artificial Pneumothorax.**

W. NEUMANN (*Med. Klin.*, March 26th, 1926, p. 491) points out that while the success of artificial pneumothorax depends largely on the dexterity of the operator, the simplification of the apparatus used is, nevertheless, an important factor. He describes the outfit which he uses. This consists of two bottles, graduated and connected at their bases, and contained in a portable wooden box. The pressure is changed in these, not by raising or lowering the bottles, but by pumping air in by means of a pneumatic bulb. The bottles need not be moved, therefore, except in special cases when a very high pressure is required. Another feature is that the two taps connecting the bottles with the water manometer and with the needle are placed on the handle of the needle itself, thus obviating the need for an assistant. The author employs ordinary air and considers it to be perfectly safe. He uses blunt needles for induction and sharp ones for refills, and thinks that in most cases the axilla is the most suitable point of entry.

87. **Prophylaxis of Measles.**

R. KOCHMANN (*Deut. med. Woch.*, April 2nd, 1926, p. 565) states that in November, 1925, a prophylactic measles serum, obtained from animals and prepared under Degkwitz's direction, was placed on the market. Kochmann has recently employed this serum in a dose of 10 c.cm. in nineteen children, aged from 9 to 21 months, who had been exposed to measles. All at the time of inoculation were healthy and afebrile, and some had been given quartz lamp treatment for rickets. Thirteen children, six of whom had more or less severe serum sickness, contracted measles and only six escaped. The latter, however, afforded no proof of the value of the serum, since one had already had measles, one was of an insusceptible age (4 months), the third could not be followed up, the fourth died of nephritis in the incubation period, and in the remaining two the history of measles was uncertain. Two of the unsuccessfully inoculated children died of measles, and of the remainder five had normal attacks, and six had bronchopneumonia, otitis, or both, as complications. The serum sickness which occurred in more than a third of the cases was almost as severe as an attack of measles untreated by serum. Kochmann concludes that the new method should not take the place of convalescents' serum in the prophylaxis of measles.

88. **Hereditary Diabetes Insipidus.**

G. MARAÑON and E. BONILLA (*La med. Ibera*, March 20th, 1926, p. 337), who record an illustrative case, remark that diabetes insipidus chiefly occurs in early life. Of fifty cases seen by Marañon about 75 per cent. developed the disease before 10 years of age. The onset of polyuria generally occurs in the years immediately preceding puberty. The disease is uncommon in the first two years of life: the earliest case is that recorded by De Luca (1915), whose patient was aged 3 months. Delafield and Rachel have reported a case at 6 months, Variot one at 17 months, and Pincherle and Magni two cases at 12 months and 17 months. The present authors' case occurred in a male infant aged 1 year, whose parents noticed that he was passing urine frequently and in large quantities, and was constantly asking for water. When seen by the authors at the age of 20 months he was passing 8 litres of urine in the twenty-four hours and drinking approximately the same amount of water. The specific gravity of the urine was 1004. Injection of 1/2 c.cm. of pituitrin caused the polyuria to fall temporarily to 4½ litres in the twenty-four hours. There were no nervous symptoms or any evidence of pituitary lesions. *X*-ray examination showed a completely normal sella turcica. In view of the fact that all writers have emphasized the importance of the hereditary factor in diabetes insipidus, it is noteworthy that the child's mother suffered from polyuria.

89. **The Pigmentary Syphilide.**

J. BEJARANO and J. A. GAY (*Arch. de med., cir. y esp.*, March 13th, 1926, p. 481), as the result of their personal experience and a study of the literature, come to the following conclusions: (1) Various causes distinct from syphilis may produce a clinical picture resembling the pigmentary syphilide. (2) The pigmentary syphilide properly so called always follows a macular or papular syphilide, as is shown by the fact that vascular lesions of a syphilitic type are always present. (3) The influence of the suprarenal capsules may be regarded as certain. The hypothesis of Brandweiner and Alquist, who regard the origin of the pigmentary syphilide as a purely local one, is very doubtful. (4) The term "achromia" is not suitable, as the authors have never found a single point of the lesion in which pigment was completely absent. The term "syphilitic leucoderma" is therefore inapplicable. (5) A pigmentary syphilide in regions other than the neck does not appear to be influenced by the action of light.

90 **Alcoholic Amblyopia.**

L. BUSSY (*Journ. de méd. de Lyon*, March 20th, 1926, p. 161) states that there has recently been an increased incidence of ocular disease referable to alcoholism, and particularly of retrobulbar neuritis. This condition, which was formerly chiefly seen in the out-patient department, is now equally common or even more frequent in private practice. It is difficult to say whether this is due to the spread of alcoholism to the upper classes or to a redistribution of wealth as the result of the war. The production of the ocular lesions is said to be due to alcohol alone. Tobacco does not appear to play any part, so that the term "nicotine and alcoholic amblyopia" should be abandoned. Bussy has never seen a pure case of nicotine amblyopia. Alcohol does not primarily affect the nerve fibres or connective tissue of the optic nerve, but the disease is primarily retinal. The toxin is believed to act on the ganglion cells of the retina, either by destroying them directly, or rather by rendering them specially sensitive to the action of light. In the treatment, therefore, of alcoholic amblyopia, especially in view of avoiding recurrence, not only should alcohol in all its forms be forbidden, but the eyes should be protected constantly against the light, and particularly against the ultra-violet rays.

91. **An Epidemic of Mild Jaundice.**

P. J. J. HONIG (*Nederl. Tijdschr. v. Geneesk.*, June 5th, 1926, p. 2347) alludes to the mild epidemic of Weil's disease reported by Körner (*Epitome*, August 22nd, 1925, para. 120) and describes an outbreak of 25 cases which occurred in the Dutch village of Zunderdorf, which has a population of 400, between November, 1925, and March, 1926. Of the patients 14 were males and 11 females. Examination of the blood was made in 6 cases with negative results. Inoculation of guinea-pigs had no effect, and the blood serum did not agglutinate *Leptospira icterohaemorrhagiae*. The disease ran a very mild course, the jaundice as a rule disappearing within a fortnight. The occurrence of 25 cases within a few months suggested a local source of infection, but none could be found. In particular no spirochaetes could be detected in the ditch water near a school where most of the cases occurred.

92. **Urinary Complications of Pertussis.**

S. CANNATA (*La Pediatria*, June 15th, 1926, p. 663) draws attention to certain urinary complications which he has noted in a collection of some 600 cases of pertussis. Albuminuria of slight degree was frequent, especially in the early stages; it was usually transitory. Haematuria was rare; in 6 cases when the coughing attacks were very violent blood appeared in the urine. Slight and transient haemoglobinuria was seen in four cases. Acute glomerular nephritis was noted in 22 cases, and haemorrhagic nephritis in 4. Cystitis and pyelocystitis were found in 47 cases but disappeared eventually.

Surgery.

93. **Treatment of Cerebral Tumours.**

R. LOZANO (*Rev. med. de Barcelona*, April, 1926, p. 352) reviews the literature and records his own experience of thirty-five patients with the diagnosis of cerebral tumour on whom he operated. In thirteen no tumour was found at the operation, and in one of these cases the necropsy confirmed the absence of a tumour, but showed a hydrocephalus of unusually large size. Two deaths occurred in Lozano's series—the first seventeen days and the second two months after the operation. In the last cases the necropsy showed an enormous hydrocephalus and a small tumour on the wall of the fourth ventricle. The subsequent history of the other patients was not known, with three exceptions. The first, which was a case of posterior craniectomy for cerebellar tumour, survived for a few years with the symptoms attenuated but without recovery of vision. The second patient, who had a calcified tumour the size of a mandarin orange removed from the left frontal lobe, was completely cured, as the intense headache, epileptiform attacks, and mental disturbance had disappeared for two years. The third patient, who had been operated on for a cyst in the left parietal lobe, had been alive for six months after the operation with paresis of the limbs on the opposite side and difficulty in articulation, both of which were improving gradually.

94. **Adenoma of the Tongue.**

G. BOLOGNESI (*Studium*, March 20th, 1926, p. 119), who records an illustrative case, comes to the following conclusions: (1) Adenoma of the tongue is a very rare occurrence. (2) In the present state of our knowledge it is impossible to explain the rarity of this tumour, which originates from definite groups of mucous glands in the tongue, in contrast with the relative frequency of carcinoma of the tongue, which is constituted by embryonic elements. (3) Most of the cases described have occurred in the male sex. (4) The tumour may be found at the base of the tongue, the sides, the lower surface, or towards the tip. (5) The condition is most frequent in young persons, but Péan's and Bolognesi's cases were in patients over 50 years of age. (6) Adenoma of the tongue is a benign affection of slow growth, and in only exceptional cases does it grow to a size sufficient to cause mechanical disturbance of respiration, mastication, and deglutition. (7) Malignant degeneration is uncommon, being rarer than in adenomata situated elsewhere. (8) In structure the tumour is a tubular, follicular, or acinous adenoma. (9) Clinically adenoma of the tongue is a round or ovoid tumour, of moderate size, definite outline, of soft and elastic consistence, nodular surface, and freely movable beneath the mucous membrane of the tongue and on the sublingual muscular plane. (10) The differential diagnosis is comparatively easy: adenoma is distinguished from fibroma and lipoma chiefly by its consistence, surface, colour, and evolution, and from lingual goitre, which is situated at the base of the tongue and gives rise to serious symptoms.

95. **Treatment of Dislocations of the Patella.**

P. MALLET-GUY and J. ROLLET (*Rev. de Chir.*, No. 2, 1926, p. 105) state that dislocations of the patella may assert their presence at or shortly after birth, while in many cases they are not discovered for a considerable number of years afterwards. Most of them are recognized, however, when the child begins to walk, and the patella becomes dislocated outwards over the external condyle when the knee is flexed. Sometimes the condition is produced as the result of an injury where the knee is suddenly and violently flexed. If treatment is not undertaken the dislocation becomes a more or less permanent condition with alteration in the surrounding structures and muscles. Numerous operations have been devised from time to time to deal with this deformity with various degrees of benefit. The authors have adopted the following method in the so-called old dislocations of the patella with success. A U-shaped incision is employed extending to below the anterior tuberosity of the tibia. After reflecting the skin the joint is opened on the outer side of the patella by incising the lateral expansion of the vasti and the capsule of the joint; if the synovial membrane is hypertrophied it is excised. The dislocation is then reduced and the patella can be easily placed in its normal position, the outer incision being enlarged if necessary. The tibial insertion of the quadriceps extensor is then transplanted to the inner side of the tibia in the usual way. To avoid the possibility of recurrence this is rather overdone than otherwise, and the capsule on the inner side of the patella is plicated. The opening in the joint to the outer side is closed by reflecting the fibrous periosteum from off the anterior surface of the patella, which is easily accomplished. Finally the skin is sutured in position. The patient walks two months later.

96. **Axillary Thrombosis treated by Phlebotomy.**

L. BAZY (*Bull. et Mém. Soc. Nat. de Chir.*, May 22nd, 1926, p. 529) records a case of thrombosis of the axillary vein treated by surgical operation with a most satisfactory result. The condition occurred in a man, aged 27, who was admitted to hospital with oedema, pain, and swelling in the arm following some violent muscular work ten days previously. There was no history of injury or disease to account for the symptoms, and the condition was diagnosed as a thrombosis of the vein. The vein was therefore exposed and opened and numerous clots evacuated, after which it was carefully sutured. After the operation there was a rapid return to the normal. Operative treatment appeared the only course possible in this case in view of the increasing intensity of the swelling and pain in the arm, and was justified by the result. The etiology of the condition is uncertain; there was no evidence of tubercle or syphilis, while cultures taken from the wound proved negative. The only possible explanation was that the condition was due to the excessive muscular action of the limb shortly before the onset of the symptoms.

97. **Cautery Circumcision.**

I. G. DUNCAN (*Urol. and Cut. Rev.*, April, 1926, p. 195), in cases of chancre, chancroid, and neglected gonorrhoea complicated by balanoposthitis, has recently been employing circumcision by cautery. The principal points of difference from the ordinary method are as follows: (1) A catheter is tied round the penis as close to the abdominal wall as possible, and novocain is injected just anterior to the catheter instead of at the site of incision. (2) The incision is made through healthy tissue, all the infected area being excised, so as to prevent the leaving of any folds or pockets which might harbour infection. (3) The entire area of raw surface is lightly touched with a cautery, special attention being paid to the margins of skin and mucous membrane, and to any bleeding vessels, or any ulcer on the glans penis. (4) No ligatures or sutures are used. (5) After the denuded surface has been sponged with alcohol it is dressed with an alcoholic solution of picric acid, and afterwards with Ochsner's solution. The cases usually heal in three or four weeks.

98. **Intussusception Statistics.**

W. F. SUERMONDT (*Nederl. Tijdschr. v. Geneesk.*, April 10th, 1926, p. 1524) reports that 40 cases of intussusception were treated at the surgical clinic at Leyden from 1908 to February 15th, 1926, with 15 deaths, and a mortality of 37.5 per cent.; 27 were boys and 23 girls. One infant was aged 2 months, two 3 months, four 4 months, four 5 months, four 6 months, three 7 months, two 8 months, three 9 months, two 10 months, two 11 months, four 12 months, one 15 months, one 16 months, two 18 months, and five 2 years or over. In 3 there was a colo-colic intussusception, in 2 an enteric intussusception, and 35 were examples of the ileo-caecal form. In 2 there was a polypus of the small intestine, and 2 patients had purpura. In 29 the intussusception could be felt before the operation. In 5 cases, which were all fatal, the intussusception could be felt per rectum. In another 4 cases which did not survive a fistula was made in the everted appendix, owing to paralytic ileus. In 25 cases, of which 5 were fatal, the intussusception was reduced and appendicopexy performed. Reduction of the intussusception alone was performed in 4 cases with 3 deaths. Resection was carried out in 10 cases with 4 deaths. The average duration of stay in hospital after operation was sixteen days. Closure of the appendix fistula had naturally not taken place by the end of this time, but occurred some months later. The causes of death in Auesen's series were as follows: peritonitis, 6 cases; intoxication due to the long duration of the intestinal obstruction 7 cases; pneumonia two days after the operation, 1 case. The mortality of cases operated on after twenty-four hours (20 per cent.) was more than three times as high as in those operated on within twenty-four hours (6.3 per cent.). Suermondt maintains that valuable time should not be lost in attempting to reduce the intussusception by bloodless means. In the ileo-caecal form reduction of the intussusception should be followed by appendicopexy. In the ileo-ileal and colo-colic forms reduction of the intussusception only should be performed. When the condition of the gut is bad, it is better to perform resection than run the risk of late perforation of the intestine due to gangrene.

99. Treatment of Carpal Ganglia.

J. J. GINSBURG (*Zentralbl. f. Chir.*, May 8th, 1926, p. 1176) recommends the modern practice of radical extirpation of carpal ganglia. Recurrences are found, according to different authorities, in from 3 to 30 per cent. of the cases. The author states that these cysts may be classified according as they arise from the joints, the tendons, or the periosteum. Some writers hold that ganglia originate in a colloidal neoplasm of the connective tissue and are unilocular or multilocular, according to their position and anatomical relations. Others hold that these cysts are o traumatic origin, with subsequent blood effusion. Endarteritis in the vicinity of the cyst has been described. Some ganglia appear to originate in colloidal degeneration of the capsular ligament or of the tendon sheaths, with secondary atrophy and cyst formation; these are primarily unilocular and subsequently become multilocular. Ginsburg recommends transverse incision of the skin and cyst wall, followed by careful removal of the lining membrane. Mature ganglia are dissected out more readily than those that are immature.

100. The Complications of Gastro-enterostomy.

HARTMANN (*Bull. et Mém. Soc. Nat. de Chir.*, April 3rd, 1926, p. 372), discussing the after-results of gastro-enterostomy, finds that most of the post-operative complications are the result of infection of the stomach wall. The presence of organisms in the ulcers themselves has been established by Rosenow. Hartmann found organisms present in the stomach wall some distance from the ulcer, and has confirmed this by the removal of fragments of mucosa at operation. He has encountered five cases of vicious circle, three following anterior and two posterior gastro-enterostomy. Two of these patients were relieved by an anastomosis between the ascending and descending limbs. He thinks that reflex bilious vomiting is not a true vicious circle; it may arise as the result of a localized peritonitis below the mesocolon. It usually subsides after a few days, when the peritoneal irritation settles down. Acute gastric dilatation following operation is probably due to paresis of the stomach and not to infection. It can generally be relieved by gastric lavage. Necropsies have not revealed peritonitis in these cases. The cause of gastro-jejunal ulceration still remains obscure, although it has been shown to be the result of the prolonged effect of the acid gastric juice on the jejunal mucosa.

Therapeutics.

101. The Employment of Vaso-dilators in Hyperpiesia.

C. MATTEI and J. DIAS-CAVARONI (*Rev. Méd. de l'Est*, March 1st, 1926, p. 149) record their researches on the effects of extract of mistletoe, sodium nitrite, and trinitrin in seven cases of hyperpiesia. All the patients had a moderate degree of arterial hypertension without signs of secondary renal or cardiac disease. Prior to any medicinal treatment every patient was kept in bed on a diet of milk and vegetables, and their blood pressures were recorded at regular intervals during the twenty-four hours for several days. The majority of the patients, after two days' rest, showed a spontaneous and definite fall of blood pressure, more marked in the maximal than in the minimal pressures. The extract of mistletoe was given by intramuscular injection (5 cg. night and morning) and in pills (15 cg. night and morning) for four days. The latter acted more slowly and in a lesser degree, but otherwise their effect was similar to that of the intramuscular injections, which produced a regular fall of maximal temperature, beginning ten minutes after the injection and exhibiting its greatest effect one hour later. When treatment was discontinued the blood pressure began to rise on the next day, and six days later the blood pressure had returned to its former height. Sodium nitrite (0.25 cg.) in solution given at 10 a.m. and 6 p.m. for four days produced a rise of maximal pressure during the first forty-eight hours; in one case this amounted to 30 mm. above the maximum pressure observed prior to any treatment. On the third and fourth days there was no rise, but a lowering of the maximal pressure (averaging 20 mm.) began in ten minutes and reached its lowest point thirty to sixty minutes after the dose had been taken. There was no variation of minimal pressure, and on the first day after the cessation of treatment the blood pressure rose to its original figure. Every dose produced tachycardia. Trinitrin was administered to patients who had failed to respond to rest and dietetic treatment. It produced an initial rise followed by a more marked fall (20 to 40 mm. Hg) in ten to twenty minutes after ingestion. Two hours later the maximal pressure was frequently higher than before commencement of treatment. The authors conclude that sodium nitrite is useless and dangerous, and trinitrin is uncertain and transient in action. Both produce tachycardia without definite reduction of blood pressure. Mistletoe is the most reliable agent in reducing the maximum pressure during and for a few days after cessation of treatment. It is less reliable in regard to minimal pressure, but it appears to reduce the force of the ventricular systole as the systolic pressure falls. This partial result is not accompanied by a similar reduction of minimal pressure, which might induce sleep. In every case the maximal and minimal pressures returned to the original scale within a few days of the cessation of treatment.

102. Treatment of Anaemia.

N. B. EDDY and A. W. DOWNS (*Canadian Med. Assoc. Journ.*, April, 1926, p. 391) urge the importance of diet in treating anaemia in view of its value in blood regeneration. The dietary factors favouring the production of erythrocytes and haemoglobin, arranged in order of their beneficial influence, have been found to be (1) cooked beef liver, (2) lean beef, (3) beef heart, (4) spinach and beet tops, (5) fruits and other green vegetables. Arsenic and the American remedy germanium dioxide were found to be inert, but iron was beneficial when the supply of it in the body had been exhausted. In many cases of secondary anaemia the oral administration of a combination of dried powdered spleen and red bone marrow gave good results, and the subcutaneous injection of small doses of secretin was also found to increase the numbers of both red and white corpuscles. The authors add that, although liquid preparations of secretin do not keep good for more than a few days, a satisfactory dried powder can be readily obtained which keeps well, is very soluble, and its aqueous solution can be easily sterilized.

103. Ergotamine Tartrate in Obstetrics.

C. J. GREMMÉE (*Nederl. Tijdschr. v. Geneesk.*, April 3rd, 1926, p. 1387) states that ergotamine tartrate is a reliable drug which has a stronger action than other preparations of ergot and does not give rise to any infiltration after injection. It has chiefly been used in Swiss clinics, where it has been found that the dose of 1 c.cm. originally recommended is too high and has been reduced to 1/2 c.cm. In labour it should be used only during the third stage, when it is said to be extremely valuable for haemorrhage due to uterine atony, and it is also useful for subinvolution. In the puerperium it is indicated when it is not certain whether the membranes have been completely expelled and involution is not complete. In such cases 1/2 c.cm. is injected daily intramuscularly.

104. Acriflavine in Gonorrhoea.

R. DUHOT (*Le Scalpel*, March 20th, 1926, p. 253) observes that the various local methods of treating gonorrhoea during the last thirty-five years have proved to be of uncertain value. Many investigators have therefore tried the intravenous route, and Duhot reported in 1912 that some syphilitic patients, suffering also from gonorrhoea, were cured of the latter after injections of neosalvarsan. Systematic injections of neosalvarsan, however, failed to cure acute gonorrhoea. Of other chemical substances similarly used the most efficacious is said to be acriflavine (see *Epitome*, June 12th, 1926, para. 593), which is a powerful yellow dye, fluorescent in solution, which has been used for urethral injections for several years, but has only recently been injected intravenously. The author quotes Jausion's statistics, which he has been able to confirm in his own practice. Jausion's method is as follows: A 2 per cent. solution of acriflavine is injected on alternate days until cure is effected. The dose is 5 c.cm., which may be given daily during the first two or three days if abortive treatment be desired. Jausion discards all local treatment, but Duhot reinforces these injections with prolonged irrigation of weak potassium permanganate. Acriflavine stains the skin and linen a deep yellow colour, but this discoloration can be removed by slightly acid methyl alcohol. Some patients suffer from slight shock, accompanied by a sensation of heat and a bitter taste in the throat; and occasionally there is a sensation of weight in the injected arm a few hours after the injection. The solution is caustic, and therefore it may produce endophlebitis, or inflammatory nodules at the site of the injections. Duhot uses a 10 c.cm. syringe half-full of the acriflavine solution, which is neutralized by completely filling the syringe with venous blood. This is slowly injected into the vein, fresh blood being drawn into the syringe and reinjected repeatedly. Jausion has treated 165 patients, and of these 153 appear to have been cured. It is claimed that this treatment, by carrying the disinfectant in the blood stream, is much more efficacious than any local injections or applications. Duhot states that he has treated 56 patients. Of these, 44 had simple acute or subacute gonorrhoea, while 12 were chronic cases with orchitis, prostatitis, etc. The total number of injections given was 664 and the treatment failed in 2 cases. In some cases six injections sufficed, while in others twenty or twenty-five injections were required.

105. Expectant Treatment of Diphtherial Laryngitis.

E. BURGHARD (*Monatsschr. f. Kinderheilk.*, March, 1926, p. 626), from his experience of 70 cases of diphtherial laryngeal stenosis in Schlossmann's clinic at Düsseldorf, maintains that operation should be avoided as much as possible in laryngeal diphtheria, though not absolutely abandoned, as he claims that this is the best means of reducing the number of fatal cases. Expectant treatment should consist in the administration of antitoxin, large doses of narcotics until the membrane has become loosened, free supply of fresh air, the bed being kept close to the open window, and the avoidance of local treatment, steam tents, and inhalations, which serve only to frighten the child. Tracheotomy should only be performed when there is a sudden mechanical obstruction to the larynx and in those cases where there is any doubt as to whether there is a descending process. The operation should not be performed in mild and moderately severe cases, in cases of descending croup, and those accompanied by pneumonia, in infants owing to the bad prognosis at this age, and in influenzal stenosis.

106. Treatment of Strophulus.

P. VALLERY-RADOT and P. BLAMOUTIER (*Paris méd.*, April 24th, 1926, p. 398) during the last eighteen months have treated children suffering from strophulus, otherwise known as acute simple prurigo (Brocq), by oral administration of peptone one hour before meals. As the number of meals has to be reduced to four daily this method is inapplicable under the age of 1 year. From this period up to the age of 30 months four meals should be given daily—namely, at 8 a.m., noon, 4 p.m., and 8 p.m. No food should be taken between meals. After the age of 30 months only three meals should be given daily—namely, at 8 a.m., 1 p.m., and 7 p.m. The treatment should not be continued for too long a period. The best plan is to give the peptone for ten consecutive days, omit it for five days, and then give it for another ten days. A diminution in the number of the papules and vesicles occurs after a few days' treatment, but a relapse is liable to follow if the treatment is discontinued. The peptone therefore should be given until a month after complete disappearance of the eruption. The authors, who have successively employed meat peptone, bivalent peptone (meat and fish peptone), and a preparation containing in addition to meat and fish peptone extracts of egg and milk, find that the best, most rapid, and permanent results are obtained by the last preparation. The peptone is best given in the form of granules, a teaspoonful being administered one hour before each meal. Out of twenty cases so treated sixteen showed good results, while in four the results were not so good owing to the occurrence of relapses.

Neurology and Psychology.

107. The Transmission of Nervous Impulses.

F. BREMER (*Le Scalpel*, June 12th, 1926, p. 520) states that the investigations of numerous observers during the last twenty-five years have shown that a nervous impulse is only one form of very rapid protoplasmic transmission. The laws which govern its transmission in the peripheral nerves are those general biological laws which apply to all waves of stimulation (muscular, ciliary, etc.). Although the physico-chemical source of nervous impulses is still unknown, yet these impulses belong to the group of stimuli which depend for their transmission only on the energy furnished locally by the medium which they traverse, as is the case of a wave of flame in a train of gunpowder. Nervous impulses resemble explosions, and this explains the fact that there is no relation between their energy and that of the stimulus. The energy of the impulse, which depends thus on that of the nerve fibre, is probably of the electro-chemical order; the part played by electrical energy in the stimulation, transmission, modification, and arrest of the wave of nervous impulse is well known. The nerve impulse, like all waves of stimulation, is manifested by a wave of negative electricity, with which it is probably identical. The most satisfactory hypothesis explaining all the features of nerve transmission is that the wave of functional negativity, apparently identical with the wave of stimulation, arises from a local and transitory depolarization of the nerve fibre at the point where the stimulus is applied; the resultant electric current acts in its turn as a stimulus throughout the length of the fibre, giving rise to a new negative wave which is transmitted from stage to stage. Conduction in reflex arcs and, generally speaking, in the grey matter, is regulated by more complex laws, possibly due to the structural complexity of the central nervous system, and not to the intervention of other processes.

108. The Pseudo-bulbar Syndrome.

L. NEUBERGER (*La Vie Méd.*, June 4th, 1926, p. 1061) describes the distinctions between the pseudo-bulbar syndrome and glosso-labio-laryngeal paralysis; the latter marks the terminal stage in the majority of medullary lesions, and is due to bulbar lesions, involving the cranial nerve nuclei, while the pseudo-bulbar or glosso-labio-cerebral paralysis is due to lesions in the mesencephalon, chiefly in the basal nuclei. Consequently it is classed among the encephalopathies due to multiple and especially subcortical lesions. The facial changes due to pseudo-bulbar paralysis are of importance in its diagnosis. The characteristic emotional disturbances can be interpreted only by reference to the cerebral physiology. Apart from the subcortical psychomotor path, which is chiefly concerned in the synthesis and distribution of intellectual functions, there is another entirely distinct path for the development and expression of emotions. The upper stage, in the neighbourhood of the Rolandic area, is the centre for psychic elaboration; it is linked with the middle stage by the cortico-thalamic fibres. The middle stage is in the thalamic area, and here emotive organization occurs; it is probably also the controlling centre of the sympathetic system. The inferior stage includes the whole of the bulbar nuclei which control articulation and expression of emotive states through the laryngeal and facial muscles. Pseudo-bulbar paralysis supervenes in a number of circumscribed encephalopathies due in part to cellular lesions and in part to vascular degenerations which often result from cerebral arterio-sclerosis or thrombosis. These lesions may produce a secondary ascending degeneration extending to the cortex and resulting in progressive motor or psychic enfeeblement; when the lesions occupy the opto-striate region changes in the facial expression are more obvious than emotional instability. This alteration in the facial expression constitutes the "pseudo-bulbar mask." The features are immobile and expressive of surprise and anxiety, the face is haggard, the eyes fixed, speech monotonous, lips paretic, so that saliva escapes involuntarily; the head is bowed, movements slow, and a nasal dysarthria and dysphagia supervene. The diagnosis of pseudo-bulbar paralysis may be confirmed by observing the gait, the patient walking with short steps.

109. Post-encephalitic Perversions.

G. HEUYER (*Arch. de méd. des enf.*, May, 1926, p. 249) remarks that post-encephalitic perversions are much commoner in the child than in the adult. In the latter epidemic encephalitis assumes, as a rule, a neurological form, and when psychical disturbances are present they are of the nature of confusion or dementia, are more psychomotor than psychical, and very rarely take on the form of perversions. The perversions observed in the child are of two types. As a rule they are characterized by suddenness, impulsiveness, lack of restraint, turbulence, fugues, thefts, and violence. These reactions resemble those of epilepsy in their content and form, but are distinguished therefrom by being conscious and not accompanied by loss of memory. Sometimes, however, the perversions bear the mark of reflection and premeditation like constitutional instinctive perverseness. In all cases the characteristic feature of post-encephalitic perversions is the failure of intimidation to act upon them and the impossibility of affecting them by blame or punishment. Heuyer maintains that the perversions are not a sequel but a clinical form of the disease, as is shown, not only by examination of the cerebro-spinal fluid, which presents a distinct excess of sugar, but also by clinical considerations. Three of Heuyer's patients were subjects of Parkinsonism, which is a clinical form of the disease rather than a sequel. As regards treatment Heuyer recommends the internment of such cases in an asylum without allowing them to mix with other patients, as the disease is still active, and it is probable, if not certain, that whether they show symptoms of Parkinsonism or not they are still contagious.

110. Non-progressive Syphilitic Dementia.

L. MARCHAND, X. ABÉLY, and E. BAUER (*Presse Méd.*, March 10th, 1926, p. 308) state that since the discovery in 1857 by Essmarch and Jessen of the role of syphilis in the etiology of general paralysis several writers have maintained that the same cause might be responsible for non-progressive conditions of dementia to which they give the name of "syphilitic dementia." Some of these cases are merely examples of general paralysis of a sluggish or even stationary character, as is proved by *post-mortem* examination. In others the clinical picture is that of a hebephreno-katatonic syndrome, of which two varieties may be described, according as the dementia is associated or not with signs of nerve syphilis. Transitional forms may also be observed.

Obstetrics and Gynaecology.

111. Morphine and Ether Injections during Childbirth.

A. ECKE and R. TAUBERT (*Zentralbl. f. Gynäk.*, April 24th, 1926, p. 1111) have had favourable results from using Gwathmey's method of inducing anaesthesia during labour. They find that the subcutaneous injection of morphine and magnesium sulphate must be given when the external os will admit two fingers and the uterine contractions are regular and strong; in primiparae the head should have engaged in the pelvic brim. Later, when the os is of "five-shilling" dimensions, the rectal injection of ether and alcohol mixed with oil is given. There is no danger to the mother, but the continuous presence of the physician is required. In more than 125 cases the authors had no foetal deaths, but some degree of asphyxia neonatorum was almost constantly encountered, responding to the usual treatments. The course of labour is somewhat slowed and bladder trouble is apt to occur as a sequel; further analgesic procedures are required for suture of the perineum. The method is contraindicated in high degrees of pelvic contraction, pyrexia during labour, and abnormal positions of the foetus. It was unsuccessful in 15 per cent. of the authors' cases and usually in obese patients; only 5 per cent. required the application of forceps. The anaesthesia lasts no longer than four to six hours; amnesia is usually complete.

112. Pelvic Sympathectomy.

A. HAMANT (*Bull. Soc. d'Obstét. et de Gynécol. de Paris*, March, 1926, p. 189) describes his experience of resection of the pelvic sympathetic nerves. He remarks that excision of the internal iliac sheath on both sides is an operation which may present considerable difficulty in fat subjects with a thick mesosigmoid; resection of the presacral nerve which joins the lumbar and hypogastric ganglia and lies in front of the fifth lumbar vertebra on the left iliac vein is simpler and more speedy and is the operation of choice. These operations have been done by the author in three and fifteen cases respectively; the patients had with one exception sclerocystic ovaries, and had complained of severe intractable pelvic pain, especially in association with the menses. In the majority of the operations sympathectomy was combined with cuneiform excision of a portion of one or both ovaries, puncture of the cysts, appendectomy or ligamentopexy, but the author attributes the post-operative disappearance of the pain very largely to the operation on the nerves; eighteen months is the longest period which has elapsed since operation. As regards the sequels of the sympathetic nerve division it was noted that the next menstruation, whatever the interval since the last, always followed within two to three days, and that succeeding menstruations were regular and became established without pain. Micturition was often unmodified, but transitory incontinence followed in one and frequency in several cases. Rectal functions during convalescence appeared to have been favourably affected by the operation.

113. Induction of Premature Labour in Pyelonephritis.

SCHOCKAERT (*Bruxelles Méd.*, May 2nd, 1926, p. 798) describes two cases of severe pyelonephritis in pregnant women necessitating the induction of premature labour. The first patient, aged 30, had had one child six years earlier and a miscarriage one year before her third pregnancy; the second patient was a primipara, aged 20. Both patients had a severe *B. coli* infection of the right renal pelvis; vaccines and medicinal treatment gave only temporary relief, and as the patients had pyrexia accompanied by rapid emaciation, and complete anorexia, Krause's method of induction of labour, under strict antiseptic precautions, was employed in both cases. Both children were born alive, at seven and a half months, but the second died eight hours after birth. A hypodermic injection of pituitrin and small doses of quinine half-hourly accelerated labour in the second case. Rapid improvement with disappearance of *B. coli* from the urine followed delivery in the first case, but in the second, bacilluria, though diminishing under vaccine treatment and urinary antiseptics, still persisted.

114. Subcutaneous Symphysiotomy.

S. G. MARRUZ (*Rev. de med. y cir. de la Habana*, March 25th, 1926, p. 175) records a case of breech presentation in a primipara, aged 42, successfully treated by subcutaneous symphysiotomy followed by episiotomy, which is the first example on record of pelviotomy being employed for a disproportionate size of the pelvic extremity. He states that owing to the adoption of the subcutaneous method, symphysiotomy, which had lost much prestige, has recently recovered a good deal of its former reputation, so that, if necessary, it has become an operation which can be performed in the patient's house without having to remove her to a clinic. During the last two years Marruz as employed the method recommended by Ortiz Pérez, who uses a special curved bistoury. The subcutaneous method of symphysiotomy was originally introduced by Cannival of Utrera in Spain, and dates from the year 1777. The vicissitudes which symphysiectomy has undergone since then are due, not to the operation itself, which is a rational and physiological one, but to defects of technique, and especially to the lack of a clear idea as to the cases in which it is indicated.

115. The Sedimentation Test in Gynaecology.

D. D. TROUBITSINE (*Rev. Franco-Russe de méd. et de biol.*, March, 1926, p. 3), as the result of the study of the sedimentation rate of the red corpuscles in 1,158 women, of whom 70 were in normal health, 92 were pregnant, and the rest suffering from various gynaecological conditions, came to the following conclusions: (1) The sedimentation rate is not a specific reaction for a definite affection. (2) The causes of rapid sedimentation being found in various gynaecological affections, the sedimentation rate has no diagnostic importance. (3) The sedimentation rate may be regarded as a criterion of health and disease and as an indication as to the time for surgical intervention; a slow sedimentation rate is a guarantee of a healthy condition of the organism, while rapid sedimentation is a sign of a morbid state without indicating its nature. (4) There is no definite relation between the duration of sedimentation on the one hand and the number of leucocytes, red cells, quantity of haemoglobin, duration of coagulation, and amount of chlorides in the blood on the other.

116. Diathermy Treatment of Gonorrhoea in Women.

MME SOUZAN (*La Gynécol.*, February, 1926, p. 65) speaks favourably of diathermy in the treatment of chronic gonorrhoea in the female, and records illustrative cases, including one of bilateral salpingitis. She recommends dorsal and ventral application of indifferent electrodes and the special vaginal or urethral electrode of Roucayrol; at each sitting, which should last at least twenty minutes, a temperature of 45° C. or rarely 46° to 48° is reached. The treatment is usually daily, but in acute cases has sometimes been given at twelve-hourly intervals. Twelve to twenty sittings are required, and the patients should be warned to expect after the first few an increase of the discharge. Treatment is followed by a polymorpholeucocytosis including many young forms, and it is to this rather than heat engendered locally that Roucayrol ascribes the beneficial effects.

117. Treatment of Severe Uterine Haemorrhage.

G. BAKSCHT (*Zentralbl. f. Gynäk.*, May 22nd, 1926, p. 1390) recommends injection of the patient's haemolysed blood in severe uterine haemorrhage occurring in the absence of gross uterine disease. Into a syringe containing 6 c.cm. of distilled water, 14 c.cm. of blood are introduced from a vein of the arm, and, after shaking, the haemolysed mixture is injected into the gluteal muscles. Two to five injections at one to two days' intervals are usually found to be effective in stopping the bleeding, but another course may be necessary some months later. Five cases of profuse haemorrhage endangering life are recorded in which this treatment appeared very successful; they include one of menorrhagia of puberty, one in which an ovary was cystic, and one in which the adnexa were fixed. The treatment is thought to be effective by reason of the stimulating effect exercised by the products of haemolysis on the vegetative nervous system and the vasomotor centre.

Pathology.

118. The Pathogenicity of B. rhusiopathiae suis for Man.

C. POSTMA (*Nederl. Tijdschr. v. Geneesk.*, February 20th, 1926, p. 754) states that the *Bacillus rhusiopathiae suis*, the organism of swine erysipelas, was regarded as quite harmless for man until Casper, Hildebrand, and Meyer, in 1899, almost simultaneously described a dermatitis occurring in veterinary surgeons due to infection with cultures of this organism during protective inoculation of pigs against swine erysipelas. The disease was subsequently shown to be caused in man by injuries during inspection of meat, in slaughterers, and in those carrying infected animals. After an incubation period of one to four days the wound, which is usually on the hands, begins to itch and burn, and a bluish-red swelling soon appears. The joints of the affected part are swollen, active movements are impossible, and passive movements difficult. Suppuration does not occur, but vesicles frequently form. Local recurrence after recovery often takes place. Lymphangitis, occasionally accompanied by lymphadenitis, is sometimes noted. The disease usually runs a chronic or subchronic course. The history of infection, prolonged course, the failure of surgical measures or external applications, and the prompt reaction to specific serum usually enable a diagnosis to be made without bacteriological examination. *B. rhusiopathiae suis*, however, has frequently been found, especially at the margin of the lesions. While in untreated cases the disease lasts from three to six weeks, according to the severity of the attack, injection of the specific serum (2 c.cm. per 10 kilos of body weight) usually causes relief in twenty-four hours and a cure in forty-eight hours. Repetition of the injection is rarely necessary. The local dermatitis described by Rosenbach in 1844 under the name of erysipeloid as occurring in cooks, poulterers, slaughterers, and farmers, appears to be bacteriologically and clinically closely allied with swine erysipelas, the differences being explained by variations in virulence of the organism.

119. The Active Principle in Tuberculin.

E. R. LONG and FLORENCE B. SEIBERT (*Amer. Rev. of Tuberculosis*, May, 1926, p. 393) report a series of experiments which appear to indicate that the principle in tuberculin which causes a skin reaction in tuberculous subjects is of protein nature, since it is completely precipitated by ammonium sulphate, while nearly all other protein precipitants throw it out of solution to some extent. It does not dialyse and is not found when all protein has been removed. It loses its activity when treated with pepsins in acid solution or alkaline trypsin, while acids or alkalis of similar strength, and erepsin or trypsin in neutral solutions, do not materially reduce its activity. It has been prepared in a crystalline form, which takes the methylene blue stain, gives the biuret, Millon, and Molisch reactions, and produces a marked skin response in tuberculous guinea-pigs, normal animals being unaffected by it.

120. The Ferment Content of the Serum in and apart from Pregnancy.

E. HERRMANN and F. KORNFELD (*Wien. Arch. f. inn. Med.*, April, 1926, p. 469) examined the lipase and diastase content of the serum in eight non-pregnant women, eight in the early months of pregnancy, nineteen in the last months, and eight at the menopause, with the following results. As regards lipase, non-pregnant women showed the highest values in the intermenstrual period, the lowest just before or just after menstruation. In pregnant women there was a pronounced fall at the beginning of pregnancy, followed by a slow rise as pregnancy advanced, without, however, reaching the normal level. During the menopause the lipase values were low, though not so low as in the early stage of pregnancy. As regards diastase, non-pregnant women showed the lowest values in the intermenstrual period, and the highest just before or just after menstruation. Pregnant women showed a marked rise at the beginning of pregnancy, followed by a slow fall, but the values remained higher than in the non-pregnant state. At the menopause the figures were approximately the same as at an advanced stage of pregnancy.

121. The Mechanism of Cancer Metastasis.

As the result of experimental work M. T. BURROWS (*Arch. Intern. Med.*, April 15th, 1926, p. 453) believes that cancer may result from primary crowding of cells and a relative reduction of the blood supply. The cancer cell is not different from the normal cell, but is merely a normal cell reacting to limitation of movement and cell crowding. The reactions which these cells undergo are said to be the result of a gradual accumulation of a substance or substances termed the "archusia," which is formed only in the presence of nutrient substances and oxygen. The process of growth is not merely the result of the action of the "archusia," but depends on the presence of other food substances in the medium. In low concentrations the "archusia" has no effect; in medium concentrations it causes cell migration into a solid protein medium and towards larger droplets of fat; in all higher concentrations the cells themselves are digested. Cancer metastases are not, he thinks, the result of simple migration of cancer cells to distant organs; they are the result of the spread of a liquid substance from the main tumours which is liberated by the digestion of the central cells of the cancer. This digestion is not an autolysis resulting from absence of oxygen, but the result of excess of growth-stimulating substance, a product of cell oxidation. This fluid stimulates the growth of both cancer cells and of normal cells. The former, already adapted to it, respond more quickly; they rob normal cells of their nutrition and so destroy them. Normal tissue may undergo malignant transformation as the result of prolonged action of this fluid. Burrows considers that while these observations throw light on the mechanism of cancer metastasis they indicate the cause of cancer. Cancer may be induced by a number of substances or conditions, such as coal tar and other lipoid solvents, bacteria, animal parasites, *x* rays, radium, and arsenic. It is a senile disease, and may result from the action of any of the above, but it also occurs in congenital tumours and defects, in chronic inflammatory areas, in tissues suffering from senile atrophy, and in tissues atrophied by various external factors, such as exposure to sun or weather. Cancer, he concludes, is not the result of any specific substance, but of a primary change, either in the cell or the tissue, induced by any one of the above. The process can, he adds, be reproduced experimentally by reducing the blood supply and causing the cells to revert from the differentiated to the growing state.

122. The Fate of Red Blood Corpuscles.

C. A. DOAN and FLORENCE R. SABIN (*Journ. Exper. Med.*, June, 1926, p. 839) have confirmed the discovery by Rous and Robertson that there is a constant fragmentation of red cells in the circulation of normal animals, and find that the debris thus produced, and even whole red cells, are taken up and destroyed by wandering endothelial phagocytes or clasmatocytes. In pathological conditions involving increased fragmentation a corresponding increase in the desquamated endothelial cells of the blood stream and of the clasmatocytes from the tissues was found to occur. The present authors claim to have been able to identify these cells and to distinguish between them and ordinary eosinophil leucocytes by the nature of their granules, their negative reaction to the peroxidase test, and by the type of their motility. They add that these cells only show a positive peroxidase reaction when they have ingested from the circulating blood substances which respond positively to the test. It is concluded that the desquamated endothelial cells in circulating blood include degenerating forms and also actively phagocytic cells. The authors have watched the process of breaking up of the red cells and the absorption of the fragments by the clasmatocytes.

123. Transmission of Typhoid Fever by Bed-bugs.

LYNN-GE (*Nat. Med. Journ. of China*, February, 1926, p. 62) has studied the possibility of the transmission of typhoid fever by bed-bugs. A special wooden cage was used framed with glass and covered with iron gauze for ventilation. The cage was divided into two parts by iron nets. In the first experiment a normal rat and a rat injected intraperitoneally with 0.5 or 1 c.cm. of an eighteen to twenty-four hours' broth culture of typhoid bacilli were kept separately and bed-bugs put in the infected part. The injected rat usually died on the eighth or ninth day, and the normal rat died in the second or third week after infection. After death cultures were made and a necropsy performed. Of thirty rats exposed, fourteen (46.6 per cent.) became infected. Lynn-Ge thinks that two conditions are essential for the infection of the bed-bugs. First, the blood sucked by the bugs must contain a large number of typhoid bacilli. Secondly, numerous bugs must bite the healthy animal. In the second experiment four albino rats previously injected with T.A.B. vaccine, and three other rats injected with typhoid bacilli were put in the cage with the bugs. No rat died after two weeks. Fourteen rats recovered from typhoid fever were put into the cage with six other rats which had been injected with typhoid bacilli and observations were made for fifteen days, but no infected rat was found, probably owing to immunity from typhoid. In the third experiment the bugs were removed from the cage which contained the ten sick rats to a cage containing ten healthy animals. Only four of the latter became infected. In the fourth experiment cultures from the blood and intestines of bed-bugs which had been put on a sick rat for seven to eight days always showed typhoid bacilli. Lynn-Ge comes to the following conclusions: (1) Typhoid fever can be transmitted by bed-bugs. (2) Typhoid bacilli can be isolated from various parts of the bed-bugs.